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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/417,714	10/13/1999	TAKASHI HIRAKAWA	SON-1659	7829

7590 11/27/2001

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EXAMINER

LAO, LUN YI

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 11/27/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

109

Office Action Summary

Application No.

891417,714

Applicant(s)

Hirokawa et al

Examiner

LAU, LUN-YI

Group Art Unit

2673

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 9/19/01
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-10 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-10 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Muraji et al(5,260,797).

As to claim 1, Muraji et al teach a liquid crystal display apparatus comprising a liquid crystal display panel(3, 59, 60, 61)(see figures 1, 3, 5, 6, 8 and column 3, lines 29-39); means for supplying a primary color video signal(R.G.B) and a correction signal for eliminating chrominance non-uniformity; and means for a common voltage(see figures 3, 5, 6, 8; abstract; column 2; lines 32-45; column 5, lines 17-43; column 6, lines 15-68 and column 7, lines 1-47).

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muraji et al(5,260,797) in view of Song(5,831,709).

As to claim 2, Muraji et al fail to apply a correction voltage added to a common voltage.

Song teaches an LCD display for adding a correction voltage(a compensating voltage) to a common voltage for eliminating chrominance non-uniformity(see figures 1 4a; column 1, lines 39-50 and column 5, lines 30-68 and column 6, lines 1-3). It would have been obvious to have modified Muraji et al with the teaching of Song, since to compensate a common voltage is more simple than to compensate a video voltage.

5. Claim 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai(6,067,128) in view of Muraji et al(5,260,797).

As to claims 1-10, Imai teaches a liquid crystal display apparatus comprising a white light source(1)(see figure 4; column 1, lines 19-28 and column 6, lines 15-22); a color separation system(see figures 1, 3, 5, 6, 8; column 3, lines 29-39 and column 4, lines 48-63); a liquid crystal display panel(8) for supplying a red video signal and a common voltage at a common line; a liquid crystal display panel(9) for supplying a green video signal and a common voltage at a common line; a liquid crystal display panel(10) for supplying a blue video signal(10) and a common voltage at a common line(see figure 4 and column 6, lines 14-24); a color synthesis system(6) for synthesizing

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the color video image and a lens system(6) for projecting video signals in a left-side-right inverted orientations(see figure 4; column 6, lines 14-24 and lines 55-68; and column 7, lines 1-3).

Imai fails to disclose a chrominance non-uniformity correction signal is superimposed on the video signal.

Muraji et al teaches an LCD projector comprising a chrominance non-uniformity correction circuit(69) for superimposed correction signals to liquid crystal display panels(59, 60, 61)(see figures 3, 8; column 5, lines 16-50 and column 7, lines 1-62). It would have been obvious to have modified Imai with the teaching of Muraji et al, so as to provide a better quality picture on a display.

Conclusion

6. Applicant's arguments filed on September 19, 2001 have been fully considered but they are not persuasive.

Applicants Muraji et al does not teach a circuit for correcting chrominance non-uniformity on pages 2-3 and 6. The examiner disagrees with that since Muraji et al teach an LCD display apparatus for canceling chrominance(color) non-uniformity by superimposing a correction signal to a primary color(R, G, B)(see figures 6, 7; abstract; column 2, lines 9-14 and column 6, lines

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15-66) which is same as applicants applied a correction signal to a primary color(R, G, B)(see figures 3, 4c, and 7E).

Applicants argue that Muraji et al and Song do not teach a correction signal for canceling chrominance non-uniformity by superimposing on the common voltage on page 4. The examiner disagrees with that since Song teaches an apparatus for canceling chrominance(color, R.G. B) non-uniformity by superimposing a correction signal on the common voltage(see column 5, lines 41-53 and column 6, lines 1-3).

Applicants argues that Imai does not teach a chrominance non-uniformity correction signal or the superimposition of chrominance non-uniformity correction signal on the primary color video signal on page 6. The examiner is in agreement. However, Muraji et al teach such features(see the discussion about Muraji et al above).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Lun-yi, Lao whose telephone number is (703) 305-4873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

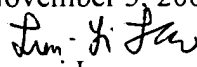
or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

November 5, 2001


Lun-yi Lao

Lun-Yi Lao
Primary Examiner